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TITLE	Science and Math Explorations for Young Children: A GEMS/PEACHES Handbook for Early Childhood Educators, Childcare Providers, and Parents.
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ABSTRACT

This handbook is designed to help readers understand the educational philosophy and practice of the PEACHES (Primary Explorations for Children and Educators in Science) and GEMS (Great Explorations in Math and Science) programs, and to assist in using GEMS/PEACHES teachers' guides in schools and child care centers. The handbook outlines techniques and strategies for use with young students and describes how the activities emphasize a developmental approach. On a larger level, the handbook is intended as a useful summary of current ideas in early childhood education that may help in evaluating curriculum materials and sparking new ideas. The goal is to help children build from what they already know in order to construct new knowledge and ideas. The handbook focuses on early childhood and is based on five of the eight K-4 content standards from the "National Science Education Standards." The handbook discusses how to put into effective practice the inquiry-based approach called for in these standards as well as the curriculum standards of the National Council of Teachers of Mathematics. The handbook's introductory materials are: (1) "What Is LHS (Lawrence Hall of Science)?"; (2) "What Is GEMS?"; (3) "What Is PEACHES?"; and (4) "Introduction." Chapters are: (1) "Science for Everyone"; (2) "Science and Math Explorations with Children"; (3) "The Role of Teachers and Parents"; (4) "Children's Play and Creativity"; (5) "Language Development"; (6) "Equity and Excellence in Early Childhood Education"; (7) "Mathematics in Early Childhood"; (8) "Timely Questions"; (9) "Active Assessment"; (10) "To Build a Bridge"; and (11) "A Look at the New Millennium." End materials include national science and mathematics standards charts, national science

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and mathematics standards criteria, and resources related to using questions as a teaching technique. (Contains 54 references). (EV)

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